

## THE CLAIMS

We claim:

- 5 1. A system for processing health care insurance claims among a health care provider, a patient and said patient's insurance carrier comprising:

a provider server operatively established at the service provider, said provider server further  
10 comprising:

a provider storage medium for storing patient data and adjudication software received from a remote source;

a provider payment determination processor  
15 operatively associated with said storage medium to process patient data, using said payment adjudication software to obtain an adjudicated payment request;

a provider communication interface for  
20 receiving data and sending data including said payment request over an external communication link in a secure manner; and

a carrier server operatively established at the insurance carrier, said carrier server further  
25 comprising:

a carrier storage medium for storing an authoritative version of patient data and insurance payment adjudication software;

5 a carrier payment administration processor for receiving said payment request and causing a payment to be made to said provider in accordance with said claim submittal; and

10 a carrier communication interface for receiving data including said payment request and sending data over said external communication link in a secure manner; and

wherein said communication link connects said provider and carrier servers through said provider and carrier communication interfaces.

15 2. A system for processing health care insurance claims, according to claim 1, wherein said provider server further comprises a data reader/writer and wherein said remote source of patient data and adjudication software is a portable device with storage capability and said  
20 patient data and adjudication software is downloaded to the provider storage medium by reading said data from said device.

3. A system for processing health care insurance claims, according to claim 2, wherein said portable device is a  
25 smart card.

4. A system for processing health care insurance claims, according to claim 2, wherein said portable device is a magnetic media card.

5. A system for processing health care insurance claims, according to claim 1, wherein said remote source of patient data and adjudication software is said carrier storage medium and said patient data and adjudication software is downloaded to said provider server from said carrier server over said communication link.

10 6. A system for processing health care insurance claims, according to claim 1, wherein said remote source of patient data and adjudication software is an Internet site and said patient data and adjudication software is downloaded to said provider server over said communication link from an Internet site.

7. A system for processing health care insurance claims, according to claim 1, further comprising:

20 a system for processing claims for treatment plans, wherein said claims require expert review comprising:

a provider expert review processor, operatively associated with said provider server, for securely storing and processing a treatment plan file, said file including treatment plan and supporting data;

25 a carrier expert review processor, operatively associated with said carrier server, for providing

processing and memory resources to support the process of conducting said expert review;

an expert review server operatively associated with said provider and carrier expert review processors through said communication links, for  
5 providing processing and memory resources to support the process of conducting said expert review;

further wherein said provider and carrier expert review processors and said expert review server cooperate to provide access to a listing of  
10 claims for review, provide processing of applications by experts for reviewing a particular claim, provide assignment of said claim to said expert and provide access by said assigned expert to said treatment plan file to conduct said review;  
15 and

an expert review module connected by said communication link to provide a means for said assigned expert to access said provider expert  
20 review server, review said treatment plan file, and generate a report.

8. A system for processing health care insurance claims, according to claim 7, wherein said expert review server comprises a web site.

25 9. A system for processing health care insurance claims, according to claim 8, wherein said web site is on said provider server and accessible through said communication link.

10. A system for processing health care insurance claims,  
according to claim 1, wherein said provider server  
further comprises a coordination of benefits processor  
for processing claims in which the patient is covered by  
5 multiple carriers, said processor constructed to identify  
said multiple carriers, obtain and segregate patient data  
and adjudication software relative to patient and each  
carrier, cause said provider payment processor to  
sequentially process said claims using the patient data  
10 and adjudication software of each of said multiple  
carriers and for allocating the payments to each carrier  
according to a predetermined priority of said carriers.

11. A system for processing health care insurance  
claims, according to claim 1, wherein said provider  
15 server further comprises a user interface constructed to  
enable a user to enter data and commands, and to observe  
a visual display of operational information.

12. A system for processing health care insurance  
claims, according to claim 1, wherein said provider  
20 server further comprises a provider patient data and  
adjudication software update processor constructed to  
send an inquiry to said carrier server to obtain a  
current version of said patient data and adjudication  
software.

25 13. A system for processing health care insurance claims,  
according to claim 12, wherein said provider update  
processor is adapted to update a portable source of  
patient data after receiving said current version of said  
patient data and adjudication software.

14. A system for processing health care insurance claims, according to claim 1, wherein said carrier server further comprises a carrier patient data and adjudication software update processor to process said inquiry from  
5 said provider server and send a current version of said patient data and adjudication software to said provider server.

15. A system for processing health care insurance claims, according to claim 14, wherein said carrier patient data  
10 and adjudication software update processor is the gate keeper to control access to said carrier storage medium.

16. A system for processing health care insurance claims, according to claim 14, wherein said carrier patient data and adjudication software update processor is constructed  
15 to determine whether said inquiries are for complete patient data files or complete adjudication software, or whether said inquiries are to check for the currency of data and software currently available at the provider server, and wherein said carrier update processor is  
20 further constructed to send an update or complete patient data and adjudication software package according to said inquiry.

17. A system for processing health care insurance claims, according to claim 1, wherein said provider and carrier  
25 communication interfaces provide security functions to protect and to keep private any data in transit, in processing, or in storage.

18. A system for processing health care insurance claims, according to claim 17, wherein said security functions include at least, encryption and decryption, identity verification, and data authentication.

5 19. A system for processing health care insurance claims, according to claim 1, wherein said security functions comply with HIPAA requirements.

20. A system for processing health care insurance claims, according to claim 1, wherein said carrier server further  
10 comprises a carrier audit processor for periodic review of said adjudicated payment requests for accuracy.

21. A system for processing health care insurance claims, according to claim 20, wherein said carrier audit processor supports payment tracking and detects  
15 fraudulent service delivery patterns.

22. A computer based method of processing health care insurance claims between a provider server and a carrier server comprising the steps of:

providing patient data and claims adjudication  
20 software for storage on said provider server;

adjudicating, at said provider server, a claim relating to a particular service using said patient data and adjudication software stored on said provider server;

generating a payment request at said provider server  
25 based on said adjudicated claim;

establishing a secure communication link between  
said provider and carrier servers;

sending said payment request from said provider  
server to said carrier server; and

5        processing said payment request at said carrier  
server and sending payment from said carrier server to  
said provider server.

23. The method according to claim 22, further comprising  
the step of establishing a parent data base containing an  
10 accurate, authoritative, current version of said patient  
data and claims adjudication software.

24. The method according to claim 22, wherein said  
patient data and adjudication software is downloaded to  
the provider server by reading said data from a portable  
15 device with storage capability .

25. The method according to claim 22, wherein said  
portable device is a smart card.

26. The method according to claim 22, wherein said  
portable device is a magnetic media card.

20 27. The method according to claim 23, wherein said  
patient data and adjudication software is downloaded to  
said provider server from said carrier server over said  
secure communication link.



28. The method according to claim 22, wherein said patient data and adjudication software is downloaded to said provider server over said communication link from an Internet site.

- 5 29. The method according to claim 22, further comprising the step of:

processing claims for treatment plans, wherein said claims require expert review, further comprising the steps of:

- 10           creating a treatment plan file, said file including treatment plan and supporting data relating to said claim;

          storing said treatment plan file in a secure, segregated expert review memory;

- 15           securely storing listings of said claims for expert review and guidelines for conducting said expert review;

- providing access to said listing and guidelines by authorized expert reviewers to enable the  
20           application by an expert reviewer for the review of a particular claim;

          processing applications by said experts, selecting an expert with respect to a claim, and assigning a claim to an expert; and

providing access to said treatment plan file to  
said assigned expert to allow said expert to conduct  
said review.

30. The method according to claim 29, further comprising  
5 the steps of:

receiving a report from said expert authorizing said  
treatment plan; and

adjudicating, at said provider server, said claim using  
said report and said patient data and adjudication  
10 software stored on said provider server;

31. The method according to claim 29, wherein said steps  
of said expert review are distributed among an expert  
review processor on said provider server, an expert  
review processor on said carrier server, and an expert  
15 review server on an Internet site.

32. The method according to claim 31, wherein said expert  
review accesses, as needed, said provider, carrier, and  
Internet expert review servers by means of a computer  
device connected through a communication link.

20 33. The method according to claim 22, further comprising  
the step of:

processing claims in which a patient is covered by  
multiple carriers, further comprising the steps of:

identifying said multiple carriers;

obtaining and segregating patient data and adjudication software relative to said patient and each carrier;

5 sequentially processing said claims on said provider server using the patient data and adjudication software of each of said multiple carriers; and

allocating the payments to each carrier according to a predetermined priority of said carriers.

10 34. The method according to claim 23, further comprising the steps of:

sending an inquiry from said provider server to said carrier server to obtain a current version of said patient data and adjudication software based on said  
15 authoritative, parent, data base; and

receiving said inquiry at said carrier server and sending a current version of said patient data and adjudication software to said provider server.

35. The method according to claim 34 further comprising  
20 the step of updating said portable device with storage capability after receiving said current version of said patient data and adjudication software.

36. The method according to claim 34, further comprising the steps of:

determining whether said inquiries are for complete patient data files or complete adjudication software, or  
5 whether said inquiries are to check for the currency of patient data and software available at the provider server, and

sending an update or complete patient data and adjudication software package according to said inquiry.

10 37. The method according to claim 22 further comprising the step of providing security functions to protect and to keep private any data in transit, in processing, or in storage.

38. The method according to claim 37, wherein said  
15 security functions include at least, encryption and decryption, identity verification, and data authentication.

39. The method according to claim 37 wherein said security functions comply with HIPAA requirements.

20 40. The method according to claim 22 further comprising the step of periodically reviewing adjudicated payment requests for accuracy.

41. The method according to claim 40, further comprising the steps of tracking payments and detecting fraudulent  
25 service delivery patterns.

42. A system for processing health insurance claims that require expert review comprising:

5 a series of processors distributed between a provider and an insurance carrier wherein said processors cooperate through a communications link to:

10 generate and securely store a treatment plan file containing a plan of treatment and supporting data related to said insurance claim;

provide guidelines for conducting said expert review;

15 process applications by experts for reviewing said treatment plan and assign an expert to review said treatment plan; and

20 wherein said series of processors are selectably accessible to allow an expert to apply to review a treatment plan, have limited and secure access to said treatment plan, and generate a report assessing said treatment plan.

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43. A system for processing health insurance claims, according to claim 42 wherein said series of processors further includes a web site and said functions are distributed among said processors.

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44. A system for processing health insurance claims, according to claim 42, wherein said expert obtains access to said series of processors using a remote computer

device operatively connected to said processors through a communication link.

45. A system for processing health insurance claims,  
5 according to claim 42, wherein said communication link includes an Internet site.

46. A system for processing health insurance claims  
according to claim 42, wherein said series of processors  
10 include communication interfaces which connect to said communication link to provide security functions to protect and to keep private any data in transit, in processing, or in storage.